CAV AIR TERMINAL UNITS

CONSTANT AIR VOLUME FLOW REGULATOR

SCVT 600 SERIES

Description

SAFID SCVT 600 Series CAV air terminals are designed to achieve constant air volume supply of conditioned air to a room in single duct air distribution systems. The SCVT air terminals are equipped with a velocity controller to regulate air flow on the basis of a control signal. The velocity controller (air flow sensor and electric actuator) maintain the required maximum amount of designed air flow to be supplied in the room. The SCVT 600 Series is fitted with Belimo actuator/controller as standard. The Belimo actuator is linearized with the SCVT 600 Series in order to achieve a high standard performance of the CAV air terminals. They have a wide range of sizes with capacities from 150 to 6000 CFM. The SCVT 600 Series will work well in Constant Air Volume (CAV) systems where air volume supplied to the room remain constant.

Standard Construction

Body:
Built of 22 gauge galvanized steel sheet, conform to ASTM A653, LFQ, G90 zinc coating.

Blade:
Built of 22 gauge galvanized steel sheet, conform to ASTM A653, LFQ, G90 zinc coating, double skin with rubber blade seal.

Case Bearing:
Brass bearing as standard.

Air Flow Sensor:
Aluminum multiple averaging flow probe that offers an excellent air flow sensing capability.

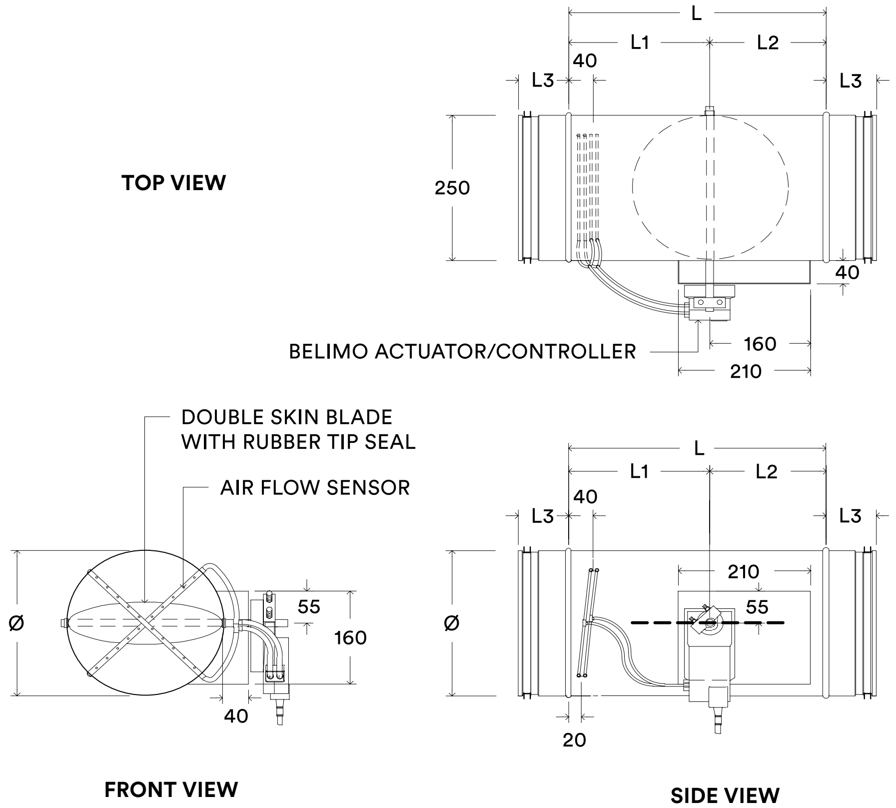
Controls:
The SCVT 600 Air terminals can be specified with electric controls. Standard control are Belimo Actuator modulating type.

Control Box:
To required suitable size (as optional)

Option: Model No. SCVTH 600 Series
General construction as type SCVT 600 Series but body, blades, control shaft and case bearing from stainless steel Type 304.

CAV AIR TERMINAL UNITS

Dimensions



MODEL	UNIT SIZE (in)	INLET SIZE DIA (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
SCVT 506	6	152	361	176	185	60
SCVT 508	8	200	385	200	185	60
SCVT 510	10	250	410	225	185	80
SCVT 512	12	305	437	252	185	80
SCVT 514	14	350	460	275	185	80
SCVT 516	16	400	485	300	185	100
SCVT 518	18	450	510	325	185	100
SCVT 520	20	500	535	350	185	100
SCVT 524	24	600	585	400	185	100

NOTE

The minimum straight portion before the CAV must be equal to 2 minutes the diameter of the inlet size of CAV to maintain the integrity of airflow sensor's performance.

CAV AIR TERMINAL UNITS

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Table 1

Discharge Sound Power Level (dB)

Size	Rated Inlet Air Flows		Inlet Velocity	Min.S.P. (in.W.G)	NC	@ 1 in. W.G. S.P. Octave Band						NC	@ 2 in. W.G. S.P. Octave Band						NC	@ 3 in. W.G. S.P. Octave Band						NC
	CFM	m³/s	FPM	Inlet S.P.		2	3	4	5	6	7		2	3	4	5	6	7		2	3	4	5	6	7	
	150	0.071	764	0.020	<20	61	56	49	38	36	39	<20	62	58	62	46	45	47	20	62	62	61	52	50	49	23
	250	0.118	1273	0.036	<20	64	62	55	45	41	43	24	66	64	61	48	46	48	26	68	67	63	53	51	51	29
6	350	0.165	1783	0.080	<20	68	67	61	51	45	46	25	73	69	60	49	47	50	27	74	72	66	54	52	53	31
	450	0.212	2292	0.120	<20	70	67	62	51	45	47	26	73	71	63	49	47	50	30	74	74	66	54	52	54	33
	550	0.260	2801	0.220	<20	72	69	62	51	45	47	27	74	72	65	48	46	50	31	74	76	66	55	53	54	35
	200	0.094	573	0.026	<20	60	53	48	39	40	41	<20	62	57	55	47	46	49	22	64	60	58	52	50	52	24
	400	0.189	1146	0.036	<20	65	57	50	41	41	41	23	68	65	58	50	48	49	23	71	67	63	56	52	52	25
8	600	0.283	1719	0.076	<20	70	60	53	44	41	41	24	74	70	62	54	50	49	30	77	73	67	59	55	53	33
	800	0.378	2292	0.136	<20	73	64	57	47	45	43	25	79	71	64	55	51	50	32	80	76	69	61	56	54	36
	1000	0.472	2865	0.200	<20	75	67	60	51	48	45	28	83	73	66	57	53	51	37	83	78	71	62	58	55	38
	400	0.189	733	0.028	<20	64	57	49	42	43	43	<20	70	63	57	51	50	50	23	71	64	60	56	53	53	25
	700	0.330	1283	0.036	<20	68	61	55	47	47	46	22	74	67	59	53	51	51	28	76	70	64	58	55	55	31
10	1000	0.472	1833	0.076	<20	73	66	61	52	51	50	25	78	70	61	54	53	52	31	79	74	67	59	57	56	33
	1300	0.613	2383	0.116	<20	75	68	63	54	53	52	27	79	72	63	56	54	53	33	81	75	67	60	57	57	36
	1600	0.755	2934	0.172	<20	77	70	65	56	55	55	30	81	73	65	57	55	54	36	83	76	68	60	58	57	37
	700	0.330	891	0.027	<20	63	55	48	45	45	42	<20	73	68	57	53	51	50	27	73	72	65	59	55	54	31
	1050	0.495	1337	0.032	<20	66	56	50	46	46	44	<20	77	73	59	55	52	52	31	78	75	65	60	56	55	34
12	1400	0.661	1783	0.040	<20	67	57	52	47	46	45	<20	79	71	60	55	53	52	33	82	74	65	60	57	56	36
	1750	0.826	2228	0.072	<20	68	60	55	49	47	46	20	80	73	63	57	55	54	35	83	75	66	61	59	57	37
	2100	0.991	2674	0.120	<20	71	62	58	50	47	46	22	82	76	65	60	57	56	37	84	77	67	62	60	58	39
	800	0.378	748	0.019	<20	57	51	48	45	44	42	<20	72	66	56	52	51	51	25	73	72	62	58	55	55	31
	1350	0.637	1263	0.032	<20	61	54	50	47	46	44	<20	74	66	58	54	52	53	27	77	74	63	59	57	57	33
14	1900	0.897	1777	0.048	<20	65	57	53	49	48	47	<20	76	66	60	56	54	55	30	81	74	64	61	59	59	35
	2450	1.156	2292	0.076	<20	70	60	57	51	49	48	21	77	68	62	57	55	55	31	82	75	66	62	59	59	37
	3000	1.416	2806	0.116	<20	72	64	61	54	51	49	23	79	70	64	59	56	56	32	84	75	67	63	60	60	39
	1000	0.472	716	0.015	<20	66	53	48	47	47	46	<20	76	68	56	55	53	53	28	78	70	64	60	57	56	32
	1750	0.826	1253	0.028	<20	68	56	52	50	49	47	20	78	69	59	57	54	54	32	80	71	66	61	59	58	35
16	2500	1.180	1790	0.036	<20	70	59	56	52	50	48	22	80	70	61	59	56	55	34	82	72	67	62	60	59	36
	3250	1.534	2328	0.056	<20	72	62	60	54	51	49	25	81	71	64	61	57	56	35	83	73	68	64	62	60	37
	4000	1.888	2865	0.084	<20	74	65	64	57	53	50	27	83	72	66	62	59	57	38	85	74	69	65	63	61	41
	1300	0.613	736	0.015	<20	65	54	51	49	48	48	<20	74	68	58	57	57	58	29	74	73	64	63	61	61	32
	2225	1.050	1259	0.026	<20	68	56	52	50	49	48	20	76	69	60	58	58	58	30	79	73	65	63	61	62	33
18	3150	1.486	1783	0.032	<20	69	58	52	51	50	48	21	78	69	62	59	59	58	32	81	73	65	64	61	62	36
	4075	1.923	2306	0.042	<20	72	61	59	54	52	49	25	80	70	63	60	59	58	35	83	74	67	64	62	62	38
	5000	2.360	2829	0.055	<20	75	65	66	56	54	51	28	82	70	65	61	60	58	37	85	74	68	65	64	62	41
	1600	0.755	733	0.019	<20	64	52	50	49	49	46	<20	73	63	58	57	57	56	27	75	70	64	63	63	61	31
	2950	1.392	1352	0.025	<20	68	56	50	50	50	49	21	75	63	59	57	57	56	28	78	70	64	64	63	61	32
20	4300	2.029	1971	0.032	<20	77	62	54	51	51	49	31	80	67	60	58	57	57	35	84	72	65	64	64	62	40
	5150	2.430	2361	0.045	<20	80	66	58	53	52	50	35	84	71	62	60	58	58	40	87	75	66	64	64	63	43
	6000	2.831	2750	0.061	<20	84	70	62	56	54	52	39	88	74	65	61	59	59	45	90	77	68	65	65	64	47
	2250	1.062	739	0.020	<20	65	53	50	49	49	46	<20	74	63	58	57	57	56	28	76	70	64	63	63	61	33
	3600	1.699	1183	0.023	<20	67	55	50	50	50	48	21	75	63	59	57	57	56	29	77	70	64	64	63	61	33
24	4950	2.336	1626	0.028	<20	72	59	52	51	51	49	25	77	65	60	58	57	57	31	81	71	65	64	64	62	35
	6400	3.020	2103	0.036	<20	78	64	56	52	52	50	32	82	69	61	59	58	58	37	85	73	66	64	64	63	41
	7850	3.704	2579	0.054	<20	82	69	61	55	53	51	37	87	73	64	61	59	59	44	88	76	67	64	64	63	45

NOTE

1. The performance data shown is based on tests conducted in accordance with ANSI / AHRI Standard 880 and ANSI / ASHRAE Standard 130.
2. Measurement of Sound Power Levels is in accordance with International Standard ISO 3741 comparison method.
3. The Noise Criteria (NC) calculation is based on AHRI Standard 885. Refer Table 3 for sound attenuation calculation.

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PERFORMANCE DATA

Table 2

Radiated Sound Power Level (dB)

Size	Rated Inlet Air Flows		Inlet Velocity	Min.S.P. (in.W.G)	NC	@ 1 in. W.G. S.P. Octave Band						NC	@ 2 in. W.G. S.P. Octave Band						NC	@ 3 in. W.G. S.P. Octave Band						NC
	CFM	m³/s	FPM	Inlet S.P.		2	3	4	5	6	7		2	3	4	5	6	7		2	3	4	5	6	7	
	150	0.071	764	0.020	<20	48	41	31	17	12	12	<20	46	43	43	25	20	20	<20	49	46	43	31	26	22	<20
	250	0.118	1273	0.036	<20	52	46	37	23	16	15	<20	54	51	43	26	22	21	<20	55	53	45	32	27	24	21
6	350	0.165	1783	0.080	<20	55	51	42	29	20	19	<20	61	54	42	28	23	22	23	62	56	47	33	27	26	24
	450	0.212	2292	0.120	<20	58	52	42	29	20	19	<20	61	56	44	28	23	23	24	62	59	47	33	28	27	28
	550	0.260	2801	0.220	<20	60	54	44	30	21	20	22	62	57	46	29	24	23	25	63	61	48	34	29	28	30
	200	0.094	573	0.026	<20	48	38	30	17	15	14	<20	50	42	36	25	22	22	<20	52	44	40	31	26	24	<20
	400	0.189	1146	0.036	<20	53	41	32	20	16	14	<20	56	50	40	29	24	22	<20	58	52	44	34	28	25	<20
8	600	0.283	1719	0.076	<20	58	45	35	22	17	15	<20	62	54	44	33	26	22	24	65	57	49	38	30	26	28
	800	0.378	2292	0.136	<20	60	48	38	26	20	16	22	66	56	46	34	27	23	30	68	61	51	39	32	27	32
	1000	0.472	2865	0.200	<20	63	52	42	29	24	18	26	70	58	48	36	29	24	35	71	62	52	41	33	28	36
	400	0.189	733	0.028	<20	52	42	30	21	19	15	<20	58	48	38	30	26	23	<20	59	49	42	34	29	26	20
	700	0.330	1283	0.036	<20	56	46	37	26	23	19	<20	62	51	41	31	27	24	24	63	55	45	36	31	27	26
10	1000	0.472	1833	0.076	<20	60	50	43	31	26	23	22	65	55	43	33	28	25	28	67	59	49	38	33	29	31
	1300	0.613	2383	0.116	<20	63	52	45	33	29	25	26	67	57	45	34	30	26	31	69	60	49	39	33	29	33
	1600	0.755	2934	0.172	<20	65	55	47	35	31	27	28	69	58	47	36	31	27	33	71	61	50	39	34	30	36
	700	0.330	891	0.027	<20	51	39	29	24	21	15	<20	61	53	39	32	26	23	23	61	57	46	38	31	26	25
	1050	0.495	1337	0.032	<20	54	41	32	25	21	17	<20	64	57	41	33	28	24	27	65	60	47	38	32	28	29
12	1400	0.661	1783	0.040	<20	55	42	34	26	22	18	<20	67	55	42	34	29	25	31	70	59	47	38	33	29	35
	1750	0.826	2228	0.072	<20	56	44	37	27	22	18	<20	68	58	44	36	30	27	32	71	60	48	40	34	30	36
	2100	0.991	2674	0.120	<20	58	47	39	29	23	18	<20	70	60	47	38	32	29	35	72	62	49	41	36	31	37
	800	0.378	748	0.019	<20	45	35	30	23	20	15	<20	60	50	37	31	26	24	22	60	57	44	37	31	27	25
	1350	0.637	1263	0.032	<20	49	39	32	26	22	17	<20	62	50	39	33	28	26	24	64	62	45	38	33	29	31
14	1900	0.897	1777	0.048	<20	53	42	34	28	23	19	<20	64	50	41	35	29	27	27	69	62	46	39	34	31	33
	2450	1.156	2292	0.076	<20	57	45	38	30	25	20	<20	65	52	43	36	31	28	28	70	63	48	40	35	32	35
	3000	1.416	2806	0.116	<20	59	48	42	32	27	21	20	67	55	46	37	32	28	31	71	63	49	41	36	32	36
	1000	0.472	716	0.015	<20	54	38	30	26	23	19	<20	63	53	38	34	29	26	26	66	55	46	38	33	29	30
	1750	0.826	1253	0.028	<20	56	41	34	28	24	20	<20	66	54	40	36	30	27	30	68	56	47	40	35	30	32
16	2500	1.180	1790	0.036	<20	58	44	38	31	26	21	<20	68	55	43	37	32	28	32	69	57	48	41	36	32	33
	3250	1.534	2328	0.056	<20	60	46	42	33	27	22	22	69	56	45	39	33	29	33	70	58	49	42	37	33	35
	4000	1.888	2865	0.084	<20	62	49	45	35	28	23	24	71	57	48	41	34	30	36	73	59	51	44	39	34	39
	1300	0.613	736	0.015	<20	53	38	33	28	24	21	<20	62	53	39	36	33	31	24	62	58	56	40	36	35	27
	2225	1.050	1259	0.026	<20	56	40	33	29	25	21	<20	64	53	41	37	34	31	27	67	57	46	41	36	34	31
18	3150	1.486	1783	0.032	<20	57	43	34	30	26	21	<20	66	54	43	38	34	31	30	69	56	47	42	37	34	33
	4075	1.923	2306	0.042	<20	60	46	41	32	28	22	22	68	54	45	39	35	32	32	71	58	48	43	38	34	36
	5000	2.360	2829	0.055	<20	63	49	48	35	29	23	26	70	55	47	40	35	33	35	73	59	50	44	40	35	39
	1600	0.755	733	0.019	<20	52	37	29	28	24	19	<20	60	48	38	35	33	29	22	63	55	45	40	39	33	26
	2950	1.392	1352	0.025	<20	56	41	32	29	25	21	<20	62	48	39	36	33	29	24	66	56	46	41	39	33	30
20	4300	2.029	1971	0.032	<20	65	47	35	30	27	22	28	68	52	41	37	33	29	32	72	57	46	42	40	34	37
	5150	2.430	2361	0.045	<20	68	51	39	32	28	23	32	72	56	44	39	34	31	37	75	60	47	43	41	36	41
	6000	2.831	2750	0.061	<20	71	55	44	34	30	25	36	76	59	47	40	35	31	43	78	62	50	45	42	37	45
	2250	1.062	739	0.020	<20	54	39	29	28	24	19	<20	61	48	38	35	33	29	23	64	55	45	40	39	33	27
	3600	1.699	1183	0.023	<20	56	42	32	29	25	21	<20	62	48	39	36	33	29	25	66	56	46	41	39	33	30
24	4950	2.336	1626	0.028	<20	64	45	34	30	26	22	27	65	51	40	37	33	29	28	70	57	46	42	40	34	35
	6400	3.020	2103	0.036	<20	66	49	35	31	28	23	30	70	54	42	38	34	30	35	73	58	47	43	41	35	38
	7850	3.704	2579	0.054	<20	70	54	43	34	30	25	35	75	58	46	40	35	31	41	77	62	49	45	42	37	43

NOTE

1. The performance data shown is based on tests conducted in accordance with ANSI / AHRI Standard 880 and ANSI / ASHRAE Standard 130.
2. Measurement of Sound Power Levels is in accordance with International Standard ISO 3741 comparison method.
3. The Noise Criteria (NC) calculation is based on AHRI Standard 885. Refer Table 3-1 for sound attenuation calculation.

NOISE CRITERIA (NC) CALCULATION

Table 3: Sound Attenuation Calculation as per AHRI 885

Table 3A	DISCHARGE SOUND ATTENUATION ASSUMPTION					
AHRI 885 DISCHARGE <300 CFM	Octave Band Center Frequency, Hz					
	125	250	500	1kHz	2kHz	4kHz
1. Environmental effect	2	1	0	0	0	0
2. Acoustical double wall round duct, 1" insulation, Ø 10" x 5ft	1.7	3.8	8	11	10.8	8.2
3. Flexible duct 5ft, Ø 8"	6	10	18	20	21	12
4. End reflection	9	5	2	0	0	0
5. Sound Power division (1 space supplied)	0	0	0	0	0	0
6. Space effect	5	6	7	8	9	10
Total Attenuation (dB)	23.7	25.8	35.0	39.0	40.8	30.2

Table 3B	DISCHARGE SOUND ATTENUATION ASSUMPTION					
AHRI 885 DISCHARGE 300 - 700 CFM	Octave Band Center Frequency, Hz					
	125	250	500	1kHz	2kHz	4kHz
1. Environmental effect	2	1	0	0	0	0
2. Acoustical double wall round duct, 1" insulation, Ø 12" x 5ft	1.5	5	7.6	11.1	10.2	7.3
3. Flexible duct 5ft, Ø 8"	6	10	18	20	21	12
4. End reflection	9	5	2	0	0	0
5. Sound Power division (2 spaces supplied)	3	3	3	3	3	3
6. Space effect	5	6	7	8	9	10
Total Attenuation (dB)	26.5	30.0	37.6	42.1	43.2	32.3

Table 3C	DISCHARGE SOUND ATTENUATION ASSUMPTION					
AHRI 885 DISCHARGE >700 CFM	Octave Band Center Frequency, Hz					
	125	250	500	1kHz	2kHz	4kHz
1. Environmental effect	2	1	0	0	0	0
2. Acoustical double wall round duct, 1" insulation, Ø 16" x 5ft	1.4	3.2	6.4	10	8.4	5.3
3. Flexible duct 5ft, Ø 8"	6	10	18	20	21	12
4. End reflection	9	5	2	0	0	0
5. Sound Power division (3 spaces supplied)	5	5	5	5	5	5
6. Space effect	5	6	7	8	9	10
Total Attenuation (dB)	28.4	30.2	38.4	43.0	43.4	32.3

NOTE

If split air flows will be supplied to the same conditioned space, the Sound Power division outlined on the above table has no effect. Therefore the value of Sound Power division in all freaquencies from 2 to 7 (125hz to 4khz) is equal to zero, then the total attenuation will be less than the above calculation. Noise Critea can be recalculated using the above calculation to apply the actual site conditions.

NOISE CRITERIA (NC) CALCULATION

Table 3-1: Sound Attenuation Calculation as per AHRI 885

Table 3D	DISCHARGE SOUND ATTENUATION ASSUMPTION					
AHRI 885 DISCHARGE >700 CFM	Octave Band Center Frequency, Hz					
	125	250	500	1kHz	2kHz	4kHz
1. Environmental effect	2	1	0	0	0	0
2. Acoustical double wall round duct, 1" insulation, Ø 18" x 5ft	1.2	3	6.1	9.6	7.2	4.7
3. Flexible duct 5ft, Ø 8"	6	10	18	20	21	12
4. End reflection	9	5	2	0	0	0
5. Sound Power division (3 spaces supplied)	5	5	5	5	5	5
6. Space effect	5	6	7	8	9	10
Total Attenuation (dB)	28.2	30.0	38.1	42.6	42.2	31.7

Table 3E	DISCHARGE SOUND ATTENUATION ASSUMPTION					
AHRI 885 DISCHARGE >700 CFM	Octave Band Center Frequency, Hz					
	125	250	500	1kHz	2kHz	4kHz
1. Environmental effect	2	1	0	0	0	0
2. Acoustical double wall round duct, 1" insulation, Ø 20" x 5ft	1.2	2.9	5.8	9.1	6.2	4
3. Flexible duct 5ft, Ø 8"	6	10	18	20	21	12
4. End reflection	9	5	2	0	0	0
5. Sound Power division (3 spaces supplied)	5	5	5	5	5	5
6. Space effect	5	6	7	8	9	10
Total Attenuation (dB)	28.2	29.9	37.8	42.1	41.2	31.0

Table 3CF	DISCHARGE SOUND ATTENUATION ASSUMPTION					
AHRI 885 DISCHARGE >700 CFM	Octave Band Center Frequency, Hz					
	125	250	500	1kHz	2kHz	4kHz
1. Environmental effect	2	1	0	0	0	0
2. Acoustical double wall round duct, 1" insulation, Ø 24" x 5ft	1.1	2.7	5	8.1	4.5	2.6
3. Flexible duct 5ft, Ø 8"	6	10	18	20	21	12
4. End reflection	9	5	2	0	0	0
5. Sound Power division (3 spaces supplied)	5	5	5	5	5	5
6. Space effect	5	6	7	8	9	10
Total Attenuation (dB)	28.1	29.7	37.0	41.1	39.5	29.6

Table 3CF	DISCHARGE SOUND ATTENUATION ASSUMPTION					
AHRI 885 DISCHARGE >700 CFM	Octave Band Center Frequency, Hz					
	125	250	500	1kHz	2kHz	4kHz
1. Environmental effect	2	1	0	0	0	0
2. Mineral tile, Space/Ceiling effect	16	18	20	26	31	36
Total Attenuation (dB)	18	19	20	26	31	36

NOTE

If split air flows will be supplied to the same conditioned space, the Sound Power division outlined on the above table has no effect. Therefore the value of Sound Power division in all freaquencies from 2 to 7 (125hz to 4khz) is equal to zero, then the total attenuation will be less than the above calculation. Noise Critea can be recalculated using the above calculation to apply the actual site conditions.

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NOISE CRITERIA (NC) CALCULATION

Table 4: Tabular Representation of NC Curves (dB)

NC	Octave Band Center Frequency (Hz) 2 (125)	3 (250)	4 (500)	5 (1 KHz)	6 (2 KHz)	7 (4 KHz)
15	36	29	22	17	14	12
20	40	33	26	22	19	17
25	44	37	31	27	24	22
30	48	41	35	31	29	28
35	52	45	40	36	34	33
40	56	50	45	41	39	38
45	60	54	49	46	44	43
50	64	58	54	51	49	48
55	67	62	58	56	54	53
60	71	67	63	61	59	58
65	75	71	68	66	64	63

NOTE

The above tabular representaion of NC curves can be used to determine the new NC level whenever recalculation of discharge or radiated NC level is required.

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Selection of Air Terminal Size

Selection Procedure:

Example No. 1:

Customer Requirements:

1. Space (room) supplied = 2 spaces
2. Cooling only application
3. Maximum cooling air flow = 1000 CFM
4. Inlet static pressure at fully open damper (minimum S.P.) = 0.1 in. W.G.
5. Maximum inlet static pressure (system static pressure)= 2 in. W.G.
6. Maximum NC level = NC 35

From Performance Data - Table 1:

1. Select Inlet Size 10 from Table 1 which has a minimum static pressure of 0.076 in. W.G. at 1000 CFM. The value of the selected minimum static pressure shall not exceed the required minimum static pressure of 0.1 in. W.G.
2. The NC levels in Table 1 were calculated using Table 3C as per AHRI 885 where above 700 CFM, the sound power division supplied 3 spaces. Using Table 3B to calculate for 2 spaces, the discharge NC level at 2 in. W.G. is NC 35 and the radiated NC level from Table 2 is NC 28.
SCVT 610 (Inlet Size 10) will meet the required pressure drop (less than 0.1 in W.G.) and NC level is NC 31 for this example.

Example No. 2:

Customer Requirements:

1. Space (room) supplied = 1 space
2. Cooling only application
3. Maximum cooling air flow = 700 CFM
4. Inlet static pressure at fully open damper (minimum S.P.) = 0.1 in. W.G.
5. Maximum inlet static pressure (system static pressure) = 2 in. W.G.
6. Maximum NC Level = NC 35

From Performance Data - Table 1:

1. Select Inlet Size 10 from Table 1, the minimum static pressure at 700 CFM is 0.036 in. W.G. Since the published NC level in Table 1 for Inlet Size 10 at 700CFM were calculated using Table 3B as supplied 2 spaces while the customer required to be supplied 1 space only, recalculation of Noise Criteria (NC) using Table 3A is required.
2. With the new calculated total attenuation in Table 3A, deduct it from the Discharge Sound Power Level of 700CFM from Table 1. Compare the resultant sound level in Table 4 to determine the NC level. The discharge NC level at 700 CFM is NC 33 and the radiated NC level from Table 2 is NC 24.

SCVT 610 (Inlet Size 10) will meet the required pressure drop (less than 0.1 in W.G.) and NC level is NC 33 for this example.

CAV AIR TERMINAL UNITS

Order Details

SVT aaa- bb- cc- dd-

Model No:

606 = Inlet Size No. 6"
608 = Inlet Size No. 8"
610 = Inlet Size No. 10"
612 = Inlet Size No. 12"
614 = Inlet Size No. 14"
616 = Inlet Size No. 16"
618 = Inlet Size No. 18"
620 = Inlet Size No. 20"
624 = Inlet Size No. 24"

M = with Belimo actuator/controller as standard

Options:

T= with step-down transformer from 220V to 24V for actuator/controller
TB= with terminal block for transformer

Airflow Setting

CFM= maximum airflow setting

NOTE

1. Both end connection is with U-profile homogeneous EPDM rubber as the standard connection.
2. The standard supply is with Belimo actuator/controller without step-down transformer and terminal block.

Order Example

Example No. 1:

Requirements:
Constant Air Volume Air Terminal Unit, size Ø10", capable of delivering 1000 CFM at constant air flow with Belimo actuator/controller.

Ordering:
Make :SAFID
Type :SCVT 610 - M - 1000CFM
Qty :1 pc

Example No. 2:

Requirements:
Same as Example No. 1 but with Belimo actuator/controller and step-down transformer.

Ordering:
Make : SAFID
Type : CSVT 610 - M - T - 1000CFM
Qty :1 pc

Example No. 3:

Requirements:
Same as Example No. 1 but with Belimo actuator/controller, step-down transformer and terminal block.

Ordering:
Make :SAFID
Type :SCVT 610 - M - T - TB - 1000CFM
Qty :1 pc